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ABSTRACT

The earlier version of the Preschool Racial Attitude Measure (PRAM I) had been found to be a useful measure in attitude development and modification studies of young children. This paper describes the lengthened and otherwise revised version of this procedure -- PRAM II. Standardization data are reported for 252 Caucasian and 140 Negro children, ranging in age from 37 to 85 months (mean is 64 months), who were tested by Caucasian and Negro examiners. Analysis of the racial attitude scores revealed that the measure had good internal consistency (r equals .80), and satisfactory test-retest reliability (r equals .55, over a one-year interval). It was demonstrated that the test may be divided into two equivalent shortforms, for test-retest purposes. Other findings were that the racial attitude scores were found to vary systematically with race of subject, but not with sex of subject, I. Q., or age. Evidence regarding race of examiner effects was inconclusive. It was concluded that PRAM II provides a reliable index of racial attitudes and that the same rationale could be employed in the assessment of other attitudes at the preschool level. Theories of racial attitude development are discussed. (DJ)

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PRESCHOOL RACIAL ATTITUDE MEASURE II

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Abstract

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Standardization data are reported for 252 Caucasian and 140 Negro children, ranging in age from 37 to 85 months (mean = 64 months), who were tested by Caucasian and Negro examiners. Analyses of the racial attitude scores revealed that the measure had good internal consistency (r = .80), and satisfactory test-retest reliability (r = .55, over a one-year interval). It was demonstrated that the test may be divided into two equivalent short-forms, for test-retest purposes. Other findings were that the racial attitude scores were found to vary systematically with race of subject, but not with sex of subject, I.Q., or age. Evidence regarding race of examiner effects was inconclusive.

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PRESCHOOL RACIAL ATTITUDE MEASURE II[1]

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Williams and Roberson (1967) described a method for the assessment of racial attitudes in preschool children. In this procedure, subsequently named the Preschool Racial Attitude Measure I (PRAM I), a series of pictures were employed, each of which contained two human figures, one with pinkish-tan skin and blonde hair ("Caucasian"), the other with medium-brown skin and black hair ("Negro"). Each picture was accompanied by a story containing one of six positive evaluative adjectives or one of six negative evaluative adjectives, with the child being asked which of the two persons was the one described in the story. The child, thus, had twelve opportunities to select one of the two figures in response to the adjectives. With one point given for selecting the Caucasian figure in response to a positive adjective, and one point for selecting the Negro figure in response to a negative adjective, the score range was zero to twelve, with low scores indicating a pro-Negro/anti-Caucasian bias, high scores indicating pro-Caucasian/anti-Negro bias, and scores aroumd six indicating no bias.

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The foregoing PRAM I procedure has been employed in a number of investigations, several of which are summarized in Table 1. In the table,

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Insert Table 1 about here

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it can be seen that the investigations have been conducted in a number of different locales, with groups of children differing in age, race, and

social class. It will be noted that the mean racial attitude (RA) scores in all groups fell in the upper portion of the score range, indicating a tendency toward pro-Caucasian/anti-Negro attitudes in all groups. The data indicated, however, that this tendency was stronger among Caucasian children than among Negro children. In addition, Vocke's (1971) data suggests that the race of the examiner may have had a slight effect upon the scores obtained.

Several investigators have employed the PRAM I procedure to assess the outcome of studies designed to modify racial attitudes in preschool children. The general findings from these studies indicated that these attitudes were: easily changed by direct behavior modification procedures (Edwards & Williams, 1970; McMurtry & Williams, 1972); changed, but less dramatically, by modifying the children's affective responses to the colors white and black (Williams & Edwards, 1969; McAdoo, J. L., 1970); and unchanged by special curriculum procedures (McAdoo, J. L., 1970; Walker, 1971).

The original rationale of the PRAM I procedure was derived from that of the semantic differential and was based on the assumption that the "semantic space" of the preschool child embraces an evaluative dimension, similar to that previously demonstrated among older children and adults by Osgood, Suci, and Tannenbaum (1957), DiVesta (1966), and others. This evaluative dimension is conceptualized as being defined at one extreme by a group of non-synonymous words which share a common meaning response of positive evaluation, or "goodness"; and at the other extreme by a second group of non-synonymous words which share a common meaning

response of negative evaluation or "badness". In a series of recent studies, it has been demonstrated that the assumption of such an evaluation dimension at the preschool level is tenable (Edwards & Williams, 1970; McMurtry & Williams, 1972; Gordon & Williams, in press). This makes it feasible to employ the evaluative dimension to develop preschool attitude measures which can be coordinated with traditional adult attitude measures via the rationale of the semantic differential.

The purpose of the present paper was to describe a revised version of the Preschool Racial Attitude Measure, designated PRAM II, and to present initial standardization data for the new procedure. Among other changes, the revision involved a redrawing of the stimulus figures, a doubling of the length of the procedure, the study of possible race of subject and race of examiner effects, and a careful examination of psychometric characteristics.

Method[3]

Materials

In the PRAM II revision, several changes were made ir the test materials. A new set of twenty-four 8 x 10 racial attitude pictures was drawn in order to improve the general artistic quality of the stimulus materials. The skin-colors of the two figures in each picture were the same as in PRAM I but the difference in hair color was removed by drawing both figures with black hair. The two PRAM II figures in each picture were, thus, identical except for the skin-color difference -- pinkish-tan vs medium brown. In the series of 24 pictures, figures of both sexes were employed, and a variety of ages -- from young children to "grandparents" --

were represented. The figures in the series were drawn in a variety of sitting, standing, and walking positions, with the pictures being otherwise generally ambiguous as to any activities in which the persons represented might be engaged.

The list of six positive and six negative adjectives employed in PRAM I were each doubled by the addition of six more adjectives. The twelve positive adjectives used in PRAM II were: clean, good, kind, nice, pretty, smart; and friendly, happy, healthy, helpful, right, and wonderful. The twelve negative adjectives used were: bad, dirty, mean, naughty, ugly, stupid; and cruel, sad, selfish, sick, unfriendly, and wrong. In both adjective groups, the first six adjectives were the "old" adjectives used in PRAM I, while the second six are the "new" adjectives added in the PRAM II revision. In PRAM II, the old and new adjectives were equally distributed between the first half of the test (called Series A), and the second half of the test (Series B).

PRAM I contained, in addition to the racial attitude items, a series of twelve sex-role items which assessed the child's knowledge of typical sex-stereotyped behaviors, and which provided a control measure of general conceptual development. These same items (see Williams & Roberson, 1967) were incorporated into the PRAM II procedure. For these items, a new series of twelve 8 x 10 sex-role pictures was drawn, each of which displayed a male and female figure of the same general age, and of the same race (half of the pictures represented Caucasians; half, Negroes).

In summary, the materials for the total PRAM II procedure consisted of 36 pictures, 24 of which were used for racial attitude items and 12 for

sex-role items. In the standard administration of the procedure, the first item was a sex-role item, followed by two racial attitude items, with this pattern repeated throughout the test.

Subjects

The basic standardization group for PRAM II consisted of 272 preschool children from Winston-Salem, North Carolina.[4] The children ranged in age from 37 months to 85 months, with a mean age of 64.9 months (S.D. = 7.64). Half of the children were Caucasian, and half were Negro, with each race group composed of equal numbers of males and females. As described below, half of each race-sex group were tested by Caucasian examiners, and half by Negro examiners. A three dimensional analysis of variance (race of subject x sex x race of examiner) indicated that the mean chronological age in all groups was equivalent. The principal data analyses reported below were based on this group of subjects.

Data were also available for a supplemental group of 116 Caucasian and 4 Negro preschoolers with a mean chronological age of 62.0, tested primarily by Caucasian examiners. For certain analyses, these subjects were combined with the 272 subjects from the standardization group to produce a combined group of 392 subjects with a mean age of 64.0 months, 252 of whom were Caucasian (mean age = 64.2) and 140 of whom were Negro (mean age = 63.6), with both race groups composed of equal numbers of males and females.

Twenty-nine Caucasian and 28 Negro subjects from the standardization group were retested after a one year interval by an examiner

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of the same race as the one who had done the original testing. The mean chronological age of this retest group was 56.8 months at the time of the first testing, and 69.6 months at the time of the second.

Procedure

All examiners were females in their early twenties. Examiners for the standardization study were one Caucasian graduate student, and four undergraduate students, two of whom were Caucasian and two Negro. Two additional undergraduate students, one Caucasian and one Negro, served as examiners in the retest study. The data for the supplementary group was gathered by the above persons with the assistance of two additional undergraduate examiners, one Negro and one Caucasian. All examiners were trained in administering the PRAM II and Peabody Picture Vocabulary Test (PPVT) procedures. Particular care was taken in training examiners not to provide incidental feedback to the children during the PRAM II administration.

The standard procedure for the administration of PRAM II was as follows. The child was taken from his classroom to a private room where he and the examiner were seated at a low table. After some initial conversation to build rapport, the examiner placed the PRAM II picture notebook and answer sheet on the table and said:

"What I have here are some pictures I'd like to show you, and stories to go with each one. I want you to help me by pointing to the person in each picture that the story is about. Here, I'll show you what I mean." The examiner then opened the notebook to the first (sex-role) picture of a little boy and a little girl seated, and read the

first story: "Here are two children. One of these children has four dolls with which they like to have tea parties. Which child likes to play with dolls?" After recording the child's response, the examiner displayed the second picture of two little boys, one Caucasian and one Negro, walking, and read the second story: "Here are two little boys. One of them is a kind little boy. Once he saw a kitten fall into a lake and he picked the kitten up to save it from drowning. Which is the kind little boy?" After recording the child's response, the examiner proceeded to picture three and story three, etc., until all thirty-six items (12 sex-role; 24 racial attitude) had been presented. In the standardization study, half the subjects were administered the second half of the test first, in order to study the equivalence of Series A (Items 1-18), and Series B (Items 19-36) of the procedure.

In the standardization group, the PRAM II administration was followed by the administration of the Peabody Picture Vocabulary Test (PPVT), Form B, following standard directions (Dunn, 1965).

The PRAM II racial attitude responses and sex role responses were scored in the following manner. The racial attitude score was determined by counting one point for the selection of the light-skinned figure in response to a positive adjective, and one point for the selection of a dark-skinned figure in response to a negative adjective. The racial attitude total score based on all 24 items thus had a range of 0-24, with high scores indicating a pro-Caucasian/anti-Negro bias, low scores indicating a pro-Negro/anti-Caucasian bias, and mid-range scores (around 12)

indicating no bias. In addition to this total score, several pairs of subscores were determined for each subject. Each pair of subscores was based on a division of the subject's responses into two halves, and each subscore thus had a range of 0-12: (1) a first-half (Series A) score, and a second-half (Series B) score; an odd-numbered items score, and an even-numbered items score; an old items score and a new items score; and a positive adjective score and a negative adjective score. The 12 sex-role items were scored by giving one point for each sex-appropriate response, yielding a possible score range of 0-12. The PPVT was scored in standard fashion to yield an IQ score for each subject.

Results[5]

Table 2 presents the frequency distributions of total racial

Insert Table 2 about here
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attitudes scores (RA-T) for the 272 subjects in the standardization group. The data are presented by race of subject, race of examiner, and sex of subject. A three-dimensional analysis of variance was performed to assess the main effects of these variables, and possible interactions among them. This analysis revealed significant ($p < .01$) main effects of race of subject and race of examiner, and a non-significant main effect of sex. In addition, no interactions were significant. The nature of the two significant main effects can be seen in Table 3 which presents the main RA-T scores

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Insert Table 3 about here
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in each of the four race of subject/race of experimenter groups. The

race of subject effect is seen in the fact that Caucasian children obtained higher scores than Negro children under both race of examiner conditions, with an overall Caucasian subject mean of 17.02 and an overall Negro subject mean of 14.73. The significant race of examiner effect indicates that both groups of children obtained higher scores with Caucasian examiners than with Negro examiners, with an overall Caucasian examiner mean of 16.97, and an overall Negro examiner mean of 14.78. The suggestion in Table 3 that the race of examiner effect is greater for Caucasian children than for Negro children was not supported by the statistical analysis, since the race of the subject by race of examiner interaction effect was not statistically significant.

Data from the 57 children in the retest group were used to recheck the two main effects just described. As noted earlier, these children were retested after a one year interval by different examiners of the same race as their initial examiners. An analysis of the RA-T scores in this group again revealed a significant ($p < .01$) race of subject effect: Caucasian subject $\overline{X} = 18.8$; Negro subject $\overline{X} = 15.0$. When the data was examined by race of examiner, no significant difference was found, and the direction of the difference was toward lower scores for children tested by Caucasian examiners: Caucasian examiners $\overline{X} = 15.9$; Negro examiners $\overline{X} = 18.1$. Thus, the race of examiner effect was not replicated in this group. An additional source of negative evidence regarding race of examiner effects is a recent study by Best (1972). In this study, each of 60 preschool Caucasian children was administered PRAM II by two examiners. The first examiner gave standard instructions and

administered the first half of PRAM II. At this point, a second examiner entered the room, replaced the first examiner, and administered the second half of the procedure. One quarter of the subjects were tested by each of the following race of examiner combinations: two Caucasians; two Negroes; Caucasian then Negro; and Negro then Caucasian. The analyses of the data obtained under these conditions provided no evidence of race of examiner effects. For example, the mean RA-T score obtained by the two Caucasian examiners was 17.6, compared with 17.9 for the two Negro examiners. In addition, there was no evidence of a tendency to shift scores up or down when the race of examiner was changed. In sum, the race of examiner effect found in the standardization group was not replicated in either the retest group, or in the Best study. In view of this, it appears that, for the present, the null hypothesis regarding race of examiner effects should be retained.

Returning to the race of subject effect, it was noted above that this effect was replicated in the retest study. These findings were also congruent with the findings from the PRAM I studies summarized earlier in Table 1. Thus, it was concluded that Negro children as a group make lower racial attitude scores than do Caucasian children. We will now examine the distribution of scores in each of these groups more closely.

Due to the two-choice nature of the PRAM procedure, the binomial distribution provided a convenient way to determine when an individual child was responding in a manner which would be unlikely on a chance basis. With 24 response opportunities, the probability of an unbiased child obtaining a score of 17 or up was only .033; the same probability

existed for scores of 7 or down. Thus, scores in the former category (17 up) were taken as evidence of a "definite" pro-Caucasian/anti-Negro bias (C+/N-), while scores in the latter category (7 down) reflected a "definite" pro-Negro/anti-Caucasian bias (N+/C-). Likewise, scores of 15 and 16, 8 and 9, were taken as evidence of "probable" bias, while the 10-14 mid-range was characterized as "unbiased".

In Table 4 are presented the percents of the 252 Caucasian children

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Insert Table 4 about here

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and 140 Negro children from the combined group who obtained scores in each of the foregoing classes. When the observed frequencies in each class were compared with the chance frequencies from the binomial distribution, a significant ($p < .001$) chi square was obtained for each group. There was a significant tendency toward high (pro-Caucasian/anti-Negro) scores among both Caucasian and Negro children. Perhaps the most dramatic evidence seen in Table 4 was the high degree of definite C+/N- bias (17 up) in both subject groups, being found in approximately 6 out of 10 Caucasian children and 4 out of 10 Negro children. At the other extreme, evidence of definite N+/C- bias (7 down) was found in only 1 out of 10 Negro children and in only 1 out of 50 Caucasian children.

Relationship of Racial Attitude to Other Subject Variables

The lack of relationship of RA-T scores to sex of subject was demonstrated by the non-significant sex effect in the analysis of variance described above. The possible relationships between RA-T scores and other subject variables were explored by means of product-moment correlation coefficients computed among the variables of RA-T

scores, age, PPVT-IQ scores, and Sex Role scores. These correlations are summarized in Table 5 where it can be seen that the RA-T scores were

Insert Table 5 about here

independent of both chronological age and PPVT-IQ. On the other hand, the Sex Role score, with which RA-T shows only a slight positive relationship, is significantly associated with both chronological age and PPVT-IQ. These findings appear to have important theoretical implications regarding the origin of racial attitudes which will be discussed later in the paper.

Internal Consistency

The internal consistency of the 24-item RA-T scale was examined using data from the 392 subjects in the combined group. This was done by comparing the subjects' responses to two halves of the scale, with the data divided in several different ways: odd items vs even items; "old" adjectives vs "new" adjectives; positive adjectives vs negative adjectives; and first half (Series A) vs second half (Series B). In each of these comparisons a product moment correlation coefficient was computed between scores on the two 12-item halves, and the Spearman-Brown correction for doubled length was then employed to estimate the internal consistency of the total 24-item scale.

The results of these comparisons are summarized in Table 6.

Insert Table 6 about here

These findings indicated that the racial attitude scale possessed a high degree of homogeneity. The Spearman-Brown estimates for the

usual "split-half" comparisons (odd-even; first half-second half) indicated that the internal consistency "reliability" of RA-T scores was of the order of .80.

The findings for the old-item vs new-item comparisons provided satisfactory evidence that the twelve items added in the PRAM II revision were measuring the same thing as the old items from PRAM I. The results for the positive adjective vs negative adjective comparison indicated that scores on these two sub-scales were substantially related, indicating that children who chose light-skinned figures in response to positive adjectives also tended to choose dark-skinned figures in response to negative adjectives, and vice-versa. Thus, the positive and negative items appeared to be assessing different aspects of the same trait.

The results of the Series A vs Series B comparison were of particular interest since the series had been designed to provide alternate short forms of the procedure. The high correlation between A and B scores (.71), the virtually identical means (A = 8.20; B = 8.24) and standard deviations (A = 2.74; B = 2.79), indicated that the two scales could be considered as equivalent 12 item short forms of PRAM II.

Stability

The stability of the RA-T scores across a one-year interval (12.8 months) was assessed using the 57 subjects from the retest group. At the time of first testing, these subjects had a mean age of 56.8 months; at the second testing, these subjects had a mean age of 69.6 months. The mean RA-T score at the first testing was 15.30 while the mean at the second testing was 16.93, a statistically significant

($p < .05$) increase of 1.63 points. This finding suggests that there may have been a slight positive practice effect for the BA-F scores. It does not seem likely that the increase was attributable to the fact that the children were a year older, since BA-T scores were found not to be correlated with age, as noted above.

Three scores (Series A, Series B, and Total) from the first administration were each correlated with the same three scores from the second administration, as shown in Table 7. The correlation of .55

Insert Table 7 about here

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between total scores at the two administrations provided the best available estimate of test-retest reliability, although the relative youth of the subjects suggested that this may be a minimum estimate. As is usual, this value was lower than the estimated internal consistency of .80, noted above. The most demanding reliability test for any measure is the coefficient of "equivalence and stability," i.e., the correlation between different forms of the test at two different administrations. As indicated in Table 7, the correlation between Series A scores from one administration and Series B scores at the other administration were statistically significant, indicating that the children's responses to one set of twelve items were related to their responses to the second set of items given one year later.

Discussion

The results of the studies just described have led to the conclusion that the PRAM II revision was generally successful and that

PRAM II can be viewed as a lengthened and otherwise improved version of PRAM I. Considering the age of the subjects studied, the internal consistency of the racial attitude scale (about .80) was particularly impressive, since this equals or exceeds the internal consistency achieved with many adult attitude measures. The test-retest reliability of .55, measured over a one-year interval with different examiners, indicated that the racial attitude scores have sufficient stability to make the measure useful in longitudinal studies of preschool children.

The results of the studies regarding possible race of examiner effects were inconclusive. While the standardization data indicated a significant tendency toward higher racial attitude scores with Caucasian examiners, this effect was not replicated in two subsequent studies. While final conclusions cannot be offered, the law of parsimony would seem to dictate that the assumption of no race of examiner effects be retained until further evidence confirming the effect is found.

In contrast to the above, the evidence regarding race of subject effects was clear and consistent: the racial attitude scores of Negro preschoolers averaged two to three points lower than the scores of Caucasian preschoolers. This evidence of difference in mean scores should not obscure the fact that in <u>both</u> groups, pro-Caucasian/anti-Negro (C+/N-) bias was much more evident than was the reverse pro-Negro/anti-Caucasian (N+/C-) bias. At least "probable" evidence of C+/N- bias was observed in seven out of ten Caucasian children, and five out of ten Negro children. The reverse N+/C- bias was much less evident in both groups, being seen in about two out of ten Negro

children and one out of twenty Caucasian children. In sum, evidence of C+/N- bias was noticeably greater in both groups than was its opposite.

Evidence such as the foregoing is often interpreted in accord with the "normative" theory of prejudice which would attribute the C+/N- bias among preschoolers to their having acquired the anti-Negro prejudices of the Caucasian-dominated larger society. This acquisition process is presumed to be a gradual one resulting from the child's repeated contacts with such prejudice through the preschool years. It would seem to follow from the normative theory that whenever children are acquiring any general concept/attitude "from the culture", it would be expected that: (1) progressively older groups of children will show progressively more evidence of the concept/attitude; and (2) brighter children will show more evidence of the concept/attitude than will duller children. Such, in fact, were the findings of the present study for the sex-role scores which reflected the child's knowledge of sex-appropriate behaviors. Regarding racial attitude scores, however, neither of these conditions were met: racial attitude scores were not correlated either with chronological age or with PPVT-IQ scores. Thus, high racial attitude scores were equally evident among brighter and duller children, and older and younger children. (Of the two brightest children in the study, one made a racial attitude score of 24, the other made a score of 1!) These findings are thus inconsistent with the requirements of the general normative theory.

There remain at least two other plausible theories concerning the origin of the reliable individual differences in attitude scores.

It is possible that the children's attitude scores are related to individual differences in familial variables, e.g., attitudinal and/or cognitive characteristics of parents. A second possibility is that the children's attitudes toward light and dark persons are influenced at least in part by individual differences in early learning experiences with light and darkness ("fear of the dark") which may be essentially independent of familial influences. In any event, it is clear that additional research in the areas of familial influence and/or early experiences will be needed to clarify the origins of the attitudes being assessed by PRAM II.

The preceding discussion raises the question as to whether the attitude trait measured by PRAM II should be designated as racial attitude, as opposed to "skin-color" attitude. This question is not easily answered. Part of the difficulty is the lack of systematic knowledge as to what "race" means to preschool children. Some evidence indicates that, at this age, skin-color is the most salient feature associated with race; and it has been demonstrated that preschoolers show little hesitancy in identifying persons as "white," "Negro," "colored," etc., when skin-color is the only basis for discrimination (Williams & Roberson, 1967). Hence, attitude toward skin-color and attitude toward "race" may be virtually synonymous at this age level. While the attitudes assessed may or may not be "racial" in their origins, it seems clear that they are "racial" in their implications, and it is this latter usage which seems to warrant the designation of the PRAM II scores as measures of racial attitude.

It would appear that the PRAM II procedure represents a substantial advance in attitude assessment procedures for preschool children and should facilitate the study of many interesting and important questions dealing with the origins, development, and modifiability of racial attitudes in young children. Regarding the latter, one study employing PRAM II has recently been conducted (Shanahan, 1972), and the availability of alternate short forms of the PRAM II procedure should be of benefit to experimenters who wish to conduct attitude change studies employing a pre-post design. The general evaluation dimension rationale on which PRAM II is based can also be used to assess other types of attitudes in young children. For example, the rationale has been employed in a number of studies dealing with children's attitudes toward the colors black and white (Renninger & Williams, 1966; Williams & Roberson, 1967; Williams & Edwards, 1969; Skinto, 1969; Williams & Rousseau, 1971; Figura, 1971; Vocke, 1971; Gordon & Williams, in press). In still another research area, the evaluative dimension rationale is currently being employed by the authors in pilot studies aimed at assessing attitudes of preschool children toward male and female persons.

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Footnotes

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2. Requests for reprints of this paper, for copies of the PRAM II manual and technical reports, and for information concerning the loan or purchase of test materials should be sent to John E. Williams, Department of Psychology, Wake Forest University, Winston-Salem, N.C. 27109.

3. The PRAM II materials and procedures are described more fully in the PRAM II manual (Williams, 1971a), available upon request.

4. This group was a further expansion of the 1970-71 standardization group (N = 232) described in the PRAM II Technical Report #1. The additional subjects served to correct the sex imbalance in the 1970-71 group.

5. Additional detailed results are available in the PRAM II technical reports (Williams, 1971b, 1972), available upon request.

Table 1

Mean Racial Attitude (RA) scores in various studies employing the FRAM I procedure

Investigator(s)	N	Av. Age	Race of E	Social Class	State-Year	Mean RA
Caucasian Groups						
Williams and Roberson (1967)	111	5-4	Cauc.	M	N.C. ('66)	10.3
Williams and Edwards (1969)	84	5-6	Cauc.	M	N.C. ('67)	9.6
Thompson*	27	3-8	Cauc.	(?)	Calif. ('68)	9.1
Bridges*	31	4-8	Cauc.	M	Texas ('69)	9.7
Bridges*	24	6-11	Cauc.	L	Texas ('69)	11.5
Firestone and Feinstein*	16	4-11	Cauc.	(?)	Conn. ('69)	10.0
Koller*	24	5-9	Cauc.	mixed (L&M)	Ohio ('70)	9.8
Ise*	30	4-4	Cauc.	M	N.Y. ('71)	10.0
					(Mean of Caucasian Means = 10.0)	
Negro Groups						
Vocke (1971)	45	5-5	Cauc.	L	S.C. ('70)	9.5
Vocke (1971)	45	5-5	Negro	L	S.C. ('70)	8.6
McAdoo, H. (1970)	33	5-1	Negro	L	Mich. ('70)	8.7
McAdoo, H. (1970)	43	5-6	Negro	L	Miss. ('70)	8.9
McAdoo, J. (1970)	65	4-6	Negro	L	Mich. ('70)	7.8
					(Mean of Negro Means = 8.7)	

* Data from unpublished studies

Table 2

Frequency distributions and means of total racial attitude scores (RA-T) for 272 subjects classified by race of subject, race of examiner, and sex of subject (M = male; F = female)

RA-T Score	Caucasian Subjects (N = 136)						Negro Subjects (N = 136)					
	Cauc. Examiner			Negro Examiner			Cauc. Examiner			Negro Examiner		
	M	F	Tot.	M	F	Tot.	M	F	Tot.	M	F	Tot.
24	1	3	4	1	1	2	3		3	2		2
23	4	5	9	1		1	2	2	4		1	1
22	2	4	6	1	5	6	3	1	4		2	2
21	6	2	8	3	1	4	1	2	3	2	1	3
20	2	1	3	2	1	3	2		2	3		3
19	4	2	6	1	3	4	3	3	6	3		3
18	5	2	7	2	3	5	2		2	1	4	5
17	4	2	6	4	1	5	2	4	6	4	1	5
16	1	2	3	3	1	4		5	5	1	2	3
15	3	4	7	3	2	5	3		3	3	3	6
14		4	4	1	2	3	5	4	9	3	3	6
13	1	1	2	7	2	9		5	5	1	7	8
12	1	1	2		4	4	1	1	2	2		2
11				1	1	2	1	1	2	1	1	2
10				1	2	3	4	2	6	3	3	6

Table 2 (Continued)

RA-T Score	Caucasian Subjects (N = 136)						Negro Subjects (N = 136)					
	Cauc. Examiner			Negro Examiner			Cauc. Examiner			Negro Examiner		
	M	F	Tot.	M	F	Tot.	M	F	Tot.	M	F	Tot.
9				2	1	3				2	1	3
8					1	1						
7											1	1
6											1	1
5		1	1		1	1	1		1	1	1	2
4					1	1		1	1	1	1	2
3				1	1	2				1		1
2								2	2			
1							1		1		1	1
0	—	—	—	—	—	—	—	1	1	—	—	—
$\bar{X}$ RA-T	19.0	18.3	18.7	15.7	15.0	15.4	16.2	14.3	15.3	14.8	13.5	14.2

Table 3

Mean total racial attitude scores for 272 subjects classified by race of subject and race of examiner

		Race of Examiner		
		Caucasian	Negro	Total
Race of Subject	Caucasian	18.66 (N = 68)	15.38 (N = 68)	17.02 (N = 136)
	Negro	15.28 (N = 68)	14.18 (N = 68)	14.73 (N = 136)
	Total	16.97 (N = 136)	14.78 (N = 136)	15.88 (N = 272)

Table 4

Per cent of total racial attitude (RA-T) scores of preschool children falling into each of five categories

RA-T Score Range	Category	Caucasian Subjects (N = 252)	Negro Subjects (N = 140)	Chance Expectancy
17-24	Definite C+/N- Bias	60.3%	39.3%	5.5%
15-16	Probable C+/N- Bias	11.5%	12.9%	13.1%
10-14	Non-Biased	23.4%	32.1%	69.2%
8-9	Probable N+/C-	2.8%	5.0%	12.1%
0-7	Definite N+/C- Bias	2.0%	10.7%	5.5%

Table 5

Intercorrelations among total racial attitude scores, age, PPVT-IQ, and sex role scores for 252 Caucasian and 140 Negro preschoolers

	Subject Groups	Chronological Age	PPVT IQ	Sex Role Score
Racial Attitude Scores	Cauc. Ss	.11	.00	.25*
	Negro Ss	.03	.06	.02
	All Ss	.09	.15	.20*
Chronological Age	Cauc. Ss		.04	.41*
	Negro Ss		.05	.38*
	All Ss		.10	.38*
PPVT-IQ	Cauc. Ss			.12
	Negro Ss			.33*
	All Ss			.33*

* $p < .01$

Note: Correlations involving PPVT-IQ are based on Caucasian N = 136, Negro N = 132, Total N = 268

Table 6

Internal consistency measures for racial attitude scale: means, correlation coefficients (r), and Spearman-Brown estimates (r SB)

Odd-Numbered Items vs Even Numbered Items

	$\bar{X}$ Odd	$\bar{X}$ Even	r	r SB
Cauc. Ss (N = 252)	8.86	8.55	.61	.76
Negro Ss (N = 140)	7.38	7.31	.76	.86
Total Ss (N = 392)	8.33	8.11	.69	.81

Old Items vs New Items

	$\bar{X}$ Old	$\bar{X}$ New	r	r SB
Cauc. Ss	9.23	8.18	.70	.78
Negro Ss	7.64	7.04	.68	.81
Total Ss	8.67	7.77	.70	.82

Positive Items vs Negative Items

	$\bar{X}$ Positive	$\bar{X}$ Negative	r	r SB
Cauc. Ss	8.91	8.50	.53	.69
Negro Ss	7.56	7.11	.68	.81
Total Ss	8.45	8.00	.61	.76

First Half (Series A) Items vs Second Half (Series B) Items

	$\bar{X}$ Series A	$\bar{X}$ Series B	r	r SB
Cauc. Ss	8.62	8.79	.65	.79
Negro Ss	7.45	7.24	.75	.86
Total Ss	8.20	8.24	.71	.83

Table 7

Test-retest correlation coefficients for Series A, Series B, and total racial attitude (RA-T) scores across a one year interval

Test	Retest		
	Series A Scores	Series B Scores	Total Scores
Series A Scores	.56**	.28*	.45**
Series B Scores	.50**	.41**	.42**
Total Scores	.60**	.40**	.55**

* $p < .05$

** $p < .01$